

REMARKS

Status of the Claims

Claims 1-29 were examined.

Claims 1, 3, 5, 9, 10, 29 were rejected.

Claims 2, 4, 6-8, 11-16 were objected to.

Claims 17-28 were allowed.

By this response, claims 1, 6, 9, 24 have been amended, claims 5, 12, 29 have been cancelled.

Claims 1-4, 6-11, 13-28 are still pending in the application.

Objections

The Examiner objected a couple of informalities. All of the informalities have been corrected. More specifically, on page 8, line 20, the reference numerals have been corrected. In claim 24, "a second MRAM cell" has been corrected to --the second MRAM cell--. In claim 24, lines 7 and 9, the words "and" have been amended to --at--.

Claim Rejections – 35 U.S.C. § 102(b)

Claims Ishikawa are rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 6,903,965 (Ishikawa).

To anticipate a Claim, Ishikawa must teach every element of the Claim and "the identical invention must be shown in as complete detail as contained in the ... Claim." MPEP 2131 citing *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1987) and *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ2d 1913 (Fed. Cir. 1989). Applicant respectfully submits that differences exist in the Claimed elements between Ishikawa and Applicant's Claimed invention such that Ishikawa cannot be said to anticipate Applicant's invention. More specifically,

Ishikawa does not teach every element of Applicant's Claims 1, 3, 5, 9, 10, as demonstrated herein below.

Amended claim 1 include the following features:

a first input connected to a first resistance, the first resistance variable between a low resistance and a high resistance;

a second input connected to a second resistance, the second resistance variable between a low resistance and a high resistance;

a resistance detector for sensing a resistive change in at least one of the first resistance and the second resistance.

Support for amended claim 1 can be found throughout the specification. For example, the specification states on page 6, "Figure 4 shows one example of an array of magnetic memory cells 400 that includes a write current generator 420, a pair 412, 414 of test memory cells 410, and a resistance change sensor 430." Further, the specification states on page 7, "Any combination of the provided resistance sensitive devices that include a changing resistance while in operation can utilize the resistance change sensor of Figure 5." On page 8, the specification states "The TMJ cells 610, 620 can include any type of tunnel magneto-resistive junction device, such as, an MRAM device. Functionally, the cells provide a resistance that can vary when subjected to a magnetic field." Figure 7 and the supporting description support the first resistance being variable between a low resistance and a high resistance, and the second resistance being variable between a low resistance and a high resistance.

Amended claim 1 is patentable over the cited references because the cited references do not include a first resistance variable between a low resistance and a high

resistance, and a second resistance variable between a low resistance and a high resistance.

As shown in Figure 16 and described in column 3, lines 53-64, Ishikawa teaches comparing a variable resistance with a fixed resistance. That is, only one of two resistors is variable. One of the resistors is a reference cell RMC which is designed to have an electrical resistance of an intermediate level between R_{max} and R_{min} .

The invention as claimed, provide for detection of changes in resistance, in which the detected resistors can all change in resistance from high resistance states to low resistance states, and vice versa. A reference resistor is not required by the claimed invention.

Additionally, in the Alexander (US patent #4,818,977), only the resistance of the sensing element 102 is variable, not the resistance of the compensator element 103, or the resistors 104, 105. See column 2, lines 58-66, and column 3.

Claim 1 is patentable over the cited references.

Claims 1-4, 6-8 are directly or indirectly dependent upon claim 1. Therefore, claims 1-4, 6-8 are patentable over the cited references.

Claim 9 has been amended to include the feature “the second TMJ formed complimentary to the first MJT cell”. None of the cited reference include this features. Claim 9 is patentable over the cited references.

Claims 10, 12-16 are directly or indirectly dependent upon claim 9. Therefore, claims 10, 12-16 are patentable over the cited references.

Claims 29 has been canceled.

CONCLUSION

For the reasons given above, and after careful review of all the cited references, Applicant respectfully submits that none of the cited references, nor any combination of

the cited references, results in, teaches or suggests Applicant's Claimed invention. But even if any such combination might arguably result in such Claimed invention, it is submitted that such combination would be non-obvious and patentable.

In view of the above Amendments and Remarks, Applicant has addressed all issues raised in the Office Action dated 19 August 2005, and respectfully solicits a Notice of Allowance for Claims 1-4, 6-11, 13-28. Should any issues remain, the Examiner is encouraged to telephone the undersigned attorney.

It is believed that all of the pending Claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending Claims (or other Claims) that have not been expressed. Finally nothing in this paper should be construed as an intent to concede any issue with regard to any Claim, except as specifically stated in this paper, and the amendment of any Claim does not necessarily signify concession of unpatentability of the Claim prior to its amendment.

Applicant believes that no fees are currently due; however, should any fee be deemed necessary in connection with this Amendment and Response, the Commissioner is authorized to charge deposit account 08-2025, referencing the Attorney docket number 200311703-1.

Respectfully submitted,

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